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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,568	10/31/2003	Lawrence W. Osterman	306051.01	1108

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EXAMINER	
PHAN, TUANKHANH D	

ART UNIT	PAPER NUMBER
2163	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/698,568	OSTERMAN, LAWRENCE W.	
	Examiner	Art Unit	
	TUAN-KHANH PHAN	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8,9,11-14,16 and 26-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8,9,11-14,16 and 26-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The Amendment, filed on 7/17/2009, has been entered and acknowledged by the Examiner. Claims 1-6, 8-9, 11-14, 16 and 26-32 are pending.

Response to Arguments

Applicant's arguments filed 7/17/2009 have been considered but are moot in view of the new ground(s) of rejection.

Issue: The applicants argue that Abdelaziz and Chen describe peer-to-peer node discovery and unicasting multicast data, respectively, neither reference teaches or suggests transmitting a UPnP message as a unicast message to a specific UPnP device where the request acts as a ICMP ping operation. Moreover, none of the cited art teaches or suggests receiving a unicast message response from a UPnP device that is a directed search response even though the UPnP device is configured to treat the request broadcast to all UPnP devices in the network.

Response: The examiner respectfully disagrees with the applicants because Abdelaziz and Chen disclose search and discovery devices and services using unicast multicast message data that not only can be done in peer-to-peer but also in client/server environment with in a network (Chen, col. 3, lines 7-11 and 38-42). In addition, ping operation as claimed by the invention is no difference than a message sending out a search and discovery from one end to another by both Abdelaziz (col. 2, lines 64-67) and Chen (col. 1, lines 53-60). Thus, applicants' argument is not persuasive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 8-9, 11-14, 16 and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abdelaziz et al. (US Pat. 7,197,565), hereinafter Abdelaziz, in view of Chen et al. (US Pat. 7,325,072), hereinafter Chen, and in view of Moonen (20030063608).

Regarding claims 1 and 26, Abdelaziz discloses a computer-implemented system that facilitates determining presence of an UPnP device, comprising:

a transmit component (Figure 15, "200A") that transmits a multicast-type message as a unicast message (Figure 15, "234"; i.e. **discovery other objects by using a unicast, multicast and/or combination type message**, col. 28, lines 15-23) to the UPnP device (Figure 15, "200B"), a specific UPnP device within the network such that the request is made to function as an ICMP ping operation, the UPnP device having a timeout period (col. 50, lines 5-15; exhibiting a timeout) and a plurality of functions capable of independent presence indication associated (i.e. **information protocol provides its functions/capabilities and presence status**, Col. 82, line 62-col. 83, line 4) therewith, the multicast-type verb being directed to a first set of one or more of the plurality of functions, the multicast-type verb being message is of a type that normally sent as a multicast datagram to discover multiple UPnP devices (Col. 82, line 62-col. 83, line 4; **devices and services discovery**); and

a presence component that monitors a response to the unicast message from the UPnP device, the response comprising a directed search response eventhough the UPnP device is configured to treat verb as if it was a broadcast request broadcasts to all

UPnP devices in the network, and if a response is not received (col. 88, lines 5-30; col. 23, lines 55-61; **if a NACK or no response is received, it is either inactive, off-line or not in existence**), the UPnP device is presumed to be off-line with respect to the first set of one or more of the plurality of functions (Figure 16, "238"), wherein the UPnP device is presumed to be on-line with respect to a second set of one or more of the plurality of functions (Figure 16, "238"), and wherein the response is similar to that for a multicast message to the UPnP device (**response is received,** col. 88, lines 10-14); and

a processor configured to execute the transmit and presence components (Figure 1A, i.e. **a device having a processor to execute**).

Abdelaziz discloses a combination of multicast and unicast, but does not explicitly disclose a multicast-type message as a unicast message. However, in the same field of endeavor, Chen et al. discloses transmitting a multicast-type message as a unicast message (col. 3, lines 9 and 39). While Abdelaziz and Chen disclose searching for devices and services by multicasting/unicasting simple service delivery protocol (SSDP) search message using an HTTP, do not discloses M-search at it is old and well-known. Moonen discloses having M-search request (¶ [0028]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate disclosure of Moonen into Chen and Abdelaziz to effectively utilize the proxy sending/receiving identity and supporting multicast relay service to reduce the lost of data when searching for device and services.

Regarding claim 2, Abdelaziz and Chen et al. disclose the system of claim 1, Abdelaziz further discloses the UPnP device is at least one of a wired device, a wireless device, and a service (Col. 6, lines 30-40).

Regarding claim 3, Abdelaziz, Chen and Moonen disclose the system of claim 1, Abdelaziz further discloses the multicast-type M-search verb is transmitted in unicast at least once before the timeout period expires (i.e. t**ime-to-live is associated upon sending the message, thus at least one message is sent with a time indicator**, col. 50, lines 5-12).

Regarding claim 4, Abdelaziz, Chen and Moonen disclose the system of claim 1, Abdelaziz further discloses a plurality of the multicast-type M-search verbs is transmitted in unicast to the UPnP device to control the UPnP device (Figure 15).

Regarding claim 5, Abdelaziz and Chen et al. disclose the system of claim 4, Abdelaziz further discloses the plurality of multicast-type M-search verbs signal the UPnP device to stay online (col. 64, lines 49-52).

Regarding claims 6 and 18, Abdelaziz and Chen et al. disclose the system of claims 1 and 17, Abdelaziz further discloses at least one of the transmit component and the presence component is part of a client application that transmits the multicast-type M-search verb in unicast and receives the response in unicast from the UPnP device (col. 6, lines 46-61).

Regarding claim 8, Abdelaziz and Chen et al. disclose the system of claim 1, Abdelaziz further discloses the unicast response is cached at the system-end (col. 135, lines 10-21; col. 30, lines 30-36).

Regarding claim 9, Abdelaziz and Chen et al. disclose the system of claim 1, Abdelaziz further discloses the multicast-type M-search verb is directed to at least one of the UPnP device (i.e. at least one peer needs to be alive to receive and response to the request; col. 25, lines 40-50), an embedded device of the UPnP device, and an embedded service of the UPnP device (col. 19, lines 56-67).

Regarding claims 11 and 21, Abdelaziz and Chen et al. disclose the system of claims 1 and 17, Abdelaziz further discloses the UPnP device is compatible with a plug-and-play architecture (col. 41, lines 42-50).

Regarding claim 12, Abdelaziz and Chen et al. disclose the system of claim 1, Abdelaziz further discloses the transmit component transmits a plurality of unique multicast-type M-search verbs in unicast to a respective plurality of the UPnP devices (i.e. sending message requests for different services to difference peers, abstract).

Regarding claim 13, Abdelaziz and Chen et al. disclose the system of claim 1, Abdelaziz further discloses the transmit component transmits a first multicast-type M-search verb in unicast to an intermediate device (Figure 1B, internet server acts as an intermediate device) to determine its status before transmitting the multicast-type M-search verb in unicast to the UPnP device (Figure 1B).

Regarding claim 14, Abdelaziz and Chen et al. disclose the system of claim 1, Abdelaziz further discloses the multicast-type M-search verb is transmitted in unicast to the UPnP device from a first client application (i.e. sending between requesting peer-unicast message, col. 83, lines 5-10), the response to which indicates a status of the UPnP device, and the status of which is announced by the first client application to a

second client application (i.e. responding to the message include information on the status, col. 83, lines 5-21).

Regarding claim 16, Abdelaziz and Chen et al. disclose a computer readable medium having stored thereon computer executable instructions (col. 101, lines 7-20) for carrying out the system of claim 1.

Regarding claim 27, Abdelaziz and Chen et al. disclose the system of claim 26, further comprising delaying determination of the status of the UPnP device until a predetermined number of additional multicast-type M-search verbs have been transmitted to the UPnP device in unicast (col. 70, lines 38-48).

Regarding claims 28 and 29, Abdelaziz and Chen et al. disclose the method of claim 26, Abdelaziz further discloses comprising initiating discovery of an intermediary UPnP device in response to determining initially that the UPnP device is off-line (col. 69, line 63-col. 70, line 7).

Regarding claim 30, Abdelaziz and Chen et al. disclose the system of claim 26, Abdelaziz further discloses the UPnP device is one of a plurality of interdependent UPnP devices such that failure of the UPnP device results in failure of the remaining plurality of interdependent UPnP devices (abstract; may serve as a client of or a server to the other devices, Figure 1A).

Regarding claim 31, Abdelaziz and Chen et al. disclose the system of claim 30, Abdelaziz further discloses plurality of interdependent UPnP devices are discovered according to a hierarchy such that the UPnP device is discovered before the remaining plurality of interdependent UPnP devices (col. 35, lines 55-58).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan·Khanh Phan whose telephone number is (571)270-3047. The examiner can normally be reached on 4/5/9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TKP
/Hung T Vy/
Primary Examiner, Art Unit 2163